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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,083	01/02/2004	Hongsun Hua	BSPAP002C	1323

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EXAMINER	
CIRIC, LJILJANA V	

ART UNIT	PAPER NUMBER
3753	

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/751,083	HUA, HONGSUN	
	Examiner	Art Unit	
	Ljiljana (Lil) V. Ciric	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) *none* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 April 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 10/038,034.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office action is in response to the reply filed on April 12, 2005.

2. Claims 1 through 12 as originally filed remain in the application.

Response to Arguments

3. Applicant's arguments filed on April 12, 2005 have been fully considered but they are not persuasive.

As a preface to the examiner's traversal of the applicant's arguments, applicant is respectfully reminded that claims in a pending application should be given their broadest reasonable interpretation. *In re Pearson*, 181 USPQ 641 (CCPA 1974).

Applicant is also respectfully reminded that claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). Also, [A]pparatus claims cover what a device *is*, not what a device *does*. (Emphasis in original). *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469 15 USPQ2d 1525, 1528 (Fed. Cir. 1990).

Finally, as specified in the MPEP, language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. The following are examples of language that may raise a question as to the limiting effect of the language in a claim:

(A) statements of intended use or field of use,

(B) "adapted to" or "adapted for" clauses,

(C) "wherein" clauses, or

(D) "whereby" clauses.

This list of examples is not intended to be exhaustive.

Thus, in response to applicant's argument that the Yarbrough et al. reference fails, for example, to disclose, teach or suggest "that when the room is being heated, the temperature of water in the water heater decreases" , the examiner hereby notes that the abovementioned limitations are part of a wherein clause in the rejected apparatus clause, and especially given that the structure of the prior art generally meets the claimed structure of the instant inventive apparatus as described at length in both the previous Office action and repeated below, various functional limitations which are part of the "wherein" clauses in the claims of the instant invention are considered to be optional and thus are not considered to be limiting.

In response to applicant's argument that the Yarbrough et al. references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., heating the room by decreasing the temperature of the water; connecting one set of heat exchangers to the switch valve at a time) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The apparatus claims of the instant invention fail to recite any structure which patentably defines over the prior art.

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Priority

4. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/038,034, filed on January 2, 2002.

Drawings

5. The drawings were received on April 12, 2005. These drawings are approved.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1 through 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yarbrough et al. (U.S. Patent 5,802,864).

Yarbrough et al. discloses a multi-functional thermal installation essentially as claimed, including, for example: a compressor 20 having an inlet and an outlet, and disposed in an enclosed water heater 10, which at least in some modes operates to heat the water in the pool or "well" as broadly interpreted as required [see column 4, lines 17-25; column 6, lines 43-44; column 7, lines 24-26]; a switch valve (i.e., reversing valve) 32 coupled to the outlet of the compressor 20; an evaporator 80 comprising a group of heat exchangers (i.e., each pass of the evaporator as shown in Figure 1 of the reference being broadly readable as required on one of the heat exchangers in a "group" of heat exchangers as recited in the claims of the instant application), this group of heat exchangers and fan 83 associated therewith being disposed in an air handler 82 (and also in the room housing the air handler); another group of heat exchangers (i.e., each pass of the plurality of coils of refrigerant conduit 44 being readable on one of the heat exchangers in this group of heat exchangers as recited in the claims of the instant application); another group of heat exchangers (i.e., each pass of the plurality of coils of refrigerant conduit 44 being

readable on one of the heat exchangers in this another group of heat exchangers as recited in the claims of the instant application) disposed in a water heater or refrigerant-to-water heat exchanger 40 or in the "water heater" 10, the enclosed water heater 10 or the refrigerant-to-water heat exchanger 40 having a water inlet 42a and a hot water outlet 42b; a condenser 60 comprising yet another group of heat exchangers (i.e., each pass of the condenser or condensing coil 60 being readable on one of the group of heat exchangers as recited in the claims of the instant application); a pool which reads broadly on the underground well as recited in the claims of the instant application, the pool or "well" being connected to the water inlet 42a of the water heater or refrigerant-to-water exchanger 40 via a pump 46; and an expansion valve 70 coupled directly or indirectly to the various groups of heat exchangers.

Thus Yarbrough et al., while disclosing at least one fan 83 associated with a group of heat exchangers, does not to specifically disclose a plurality of such fans. Nevertheless, duplicating parts for a multiplied effect is generally not inventive unless there are unexpected results associated therewith. See In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

It would therefore have been obvious to one skilled in the art at the time of invention to modify the thermal installation of Yarbrough et al. by including more than one fans 83 in order to, for example, keep the size of each fan (and thus the noise level associated therewith) smaller or in order to provide a back-up fan and thus protect against total operational failure in the event one fan motor fails.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action

is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric whose telephone number is 571-272-4909. The examiner can normally be reached on Mondays through Fridays from 10:00 a.m. to 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene, can be reached at 571-272-4930.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ljiljana (Lil) V. Ciric
Primary Examiner
Art Unit 3753